



## Center for Social Development

GEORGE WARREN BROWN SCHOOL OF SOCIAL WORK

# RESEARCH BRIEF

| MARCH 2013 | CSD PUBLICATION NO. 13-09 |

## Relationships Between College Savings and Enrollment, Graduation, and Student Loan Debt

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Child Development Accounts (CDAs) ideally are opened at birth, include an initial deposit and other subsidies, and can be used only for approved expenses (e.g., education, home purchase, starting a small business). In 1991, Michael Sherraden proposed that CDAs could facilitate lifelong savings accumulation and asset building, particularly among low- and moderate-income (LMI) children. Allocating resources for these children and encouraging them and their parents to save is important because their parents are not as able as those who are high-income (HI) to invest in their children's educational and other needs.<sup>1</sup> Children in families that have few or no assets (e.g., savings, a car, a home) have lower academic achievement scores, high school graduation rates, college enrollment rates, and college graduation rates than children in families that have assets.<sup>2</sup> This implies that there are many potential educational benefits of allotting resources—especially assets—to LMI children.

Despite growing national interest in CDAs and other vehicles for college savings, important questions remain unanswered. This brief summarizes two recent studies that examine whether (a) having small amounts of money in savings accounts—small-dollar

children's savings accounts—are positively associated with college enrollment and graduation, (b) having savings designated for school is more strongly related to educational outcomes than having basic savings, and (c) if children's savings (school-designated or basic) are associated with college graduation.<sup>3</sup> We also review a study of the association between parents' college savings and children's college loan debt. Based on evidence from the research, we suggest that policies and programs clearly state their goals. For example, if the goal is to improve expectations for attending and graduating from college, promoting small-dollar children's savings accounts might make a difference. However, if the goal is to reduce college debt, policies must help children and parents accumulate enough savings to pay college costs and reduce reliance on loans.

### Small-Dollar Children's Savings Accounts<sup>a</sup>

Evidence suggests that having school savings might be as closely associated with college outcomes as the amount in it. Children with \$1 to \$499 designated

<sup>a</sup>This section is based on Elliott, W. (2012). *Small-dollar children's savings accounts and college outcomes* (CSD Working Paper 13-05). St. Louis, MO: Washington University, Center for Social Development and Elliott, W., Song, H-a., & Nam, I. (2012). *Small-dollar children's savings accounts, income, and college outcomes* (CSD Working Paper 13-06). St. Louis, MO: Washington University, Center for Social Development. Both papers use data from the Panel Study of Income Dynamics (PSID) and its supplements, the Child Development Supplement (CDS) and the Transition into Adulthood (TA) Study.



for school are 2.5 times more likely to enroll in and graduate from college than children with no account, which suggests that saving and wealth-building policies to improve college enrollment and graduation rates might have positive effects even when children save small amounts.

If improving college enrollment and graduation outcomes is the goal, programs that (a) incorporate accounts specifically for school savings and/or (b) encourage children to designate a portion of savings for school might be more effective than programs that promote saving without encouraging children to link savings to college. Previous research<sup>4</sup> has suggested that programs promoting children's savings for school have a positive effect on college enrollment and that the positive effects are more likely to occur for LMI children than HI children.<sup>5</sup>

## Mental Accounting

The positive effects of having a savings account—even if it contains a very small amount of money—could be the result of mental accounting. Mental accounting is the process of assigning money to categories,<sup>6</sup> which affects when and how people use it.<sup>7</sup> It also might affect formation of identities by influencing the way children view themselves. Small-dollar accounts with money mentally designated for school might affect educational outcomes<sup>8</sup> positively by helping children see themselves as college bound. They also may signal to children that future savings<sup>9</sup> can finance college. Expected future savings might be as important as current savings—or at least a sufficient reason—for believing that college is within reach and requires action.<sup>10</sup> Finally, designating money for college indicates that children believe that people like

them can go to college. These findings suggest that school-designated savings are more effective than basic savings in influencing college outcomes.

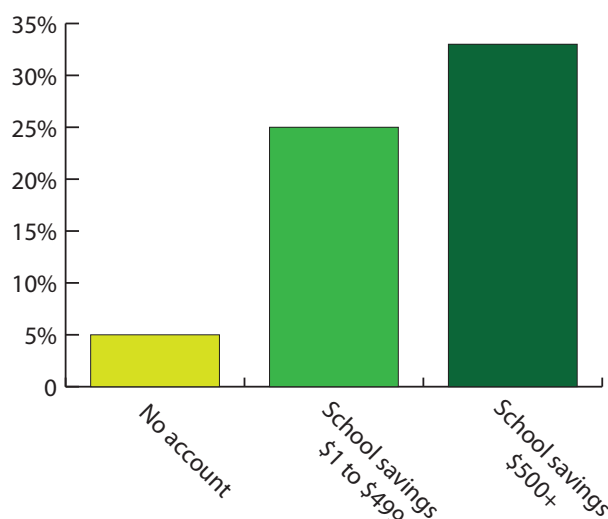
## Household Income and College Outcomes

Overall, findings suggest that having even a small amount of savings designated for school can have a positive effect on LMI children's graduation rates (Figure 1). When contrasted with an LMI child with no savings account, an LMI child with school savings of \$1 to \$499—either in a physical savings account or mentally set aside—before college age is more than three times more likely to *enroll* in college and more than 4.5 times more likely to *graduate* from college. In addition, an LMI child with school savings of \$500 or more is about five times more likely to graduate from college than a child with no savings account.

Findings also suggest that designating less than \$1 for school is associated with college enrollment, which may be based on the cumulative psychological effects of having savings. That is, children with school-designated savings—even very small amounts—may be better prepared academically for the rigors of college because of early engagement and achievement in school.<sup>11</sup>

While having a small-dollar account might signal to a child that financing college is possible, it is less realistic to expect children to save money for school once they are in college. Therefore, part of the effect of school savings on college persistence might have to do with having enough savings on hand to pay actual college expenses and avoid accruing detrimental amounts of student loan debt.

Figure 1. LMI children who graduate from college by savings amount



## Student Loan Debt<sup>b</sup>

Rising college costs, stagnant or decreasing family wages, and changing federal and state policies are pressuring students to rely more on borrowing. Since the late 1970s, the federal government increasingly has attempted to promote equal access through policies that make college loans accessible to more students.<sup>12</sup> The amount of student debt is growing:<sup>13</sup>

- During the 2011-2012 school year, 37% of all undergraduate financial aid received (\$70.8 billion) came from federal loans.
- The percentage of undergraduate students who obtained federal loans increased from 23% in 2001-2002 to 35% in 2011-2012.
- In 2010-2011, nearly 57% of public four-year college students graduated with debt.
- On average, students who attended public four-year colleges borrowed \$23,800.
- Total borrowing for college hit \$113.4 billion for the 2011-2012 school year, up 24% from 2007.

Policymakers tend to believe that individual students should bear more personal responsibility because they benefit most from attending college, so there might be very little political will to increase the number of scholarships and grants available to students. The shift from *need-based aid*—determined solely by assets and income (i.e., financial need) of prospective students and their families—to *merit-based aid*—most commonly scholarships that are awarded based on test scores—also determines the amount that students potentially must borrow to pay for college.<sup>14</sup> Students with little financial need have the same entitlement to merit-based aid as students with significant financial need.

### High-Dollar Student Loans

Research suggests that (a) high-dollar student loans (\$10,000 or more) in particular can reduce the probability that students—especially those from lower income households<sup>15</sup>—persist in and graduate from college and (b) parents' college savings may reduce the probability that LMI students accrue high-dollar student loan debt.<sup>16</sup>

A particularly strong predictor of whether students take out high-dollar loans is the amount of money they expected as children to borrow in the future. Students who expected to borrow \$10,000 or more were far more likely to have taken out high-dollar amounts. Some research suggests that students may gain a boost in self-esteem and a sense of mastery from taking out student loans, which may encourage them to take out additional loans. However, this sense of mastery begins to fade over time.<sup>17</sup>

### Undesired Effects of High Student Debt

As a policy mechanism, student loans are designed to ensure that more students have access to college by providing funds at the time of enrollment, but graduation rates may decrease once borrowed amounts reach a certain level.<sup>18</sup> Students may be more likely to drop out of college once loans become too high (\$10,000 or more). Those who take on high-dollar loans early in their college careers may not have realistic expectations about what they can afford to pay back<sup>19</sup> and may become averse to taking out additional loans necessary to graduate. Research also suggests that student loans may be a more effective strategy for middle- and high-income students because of low-income students' aversion to borrowing.<sup>20</sup> These findings suggest that continuing to increase the amount of loans available to students without the inclusion of other complementary financial aid policies might not result in higher rates of college persistence.

### Parents' College Savings

Research on CDAs has focused primarily on educational attainment and children's college expectations, but one policy argument for adopting CDAs is that they can help reduce college debt. Given this, it seems important to determine whether an association exists between assets—such as CDAs or parents' college savings, as in this discussion—and college debt. Evidence indicates that parents' having college savings helps reduce the likelihood that students will take out high-dollar loans in all subsamples except HI students. Also,

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<sup>b</sup>This section is based on Elliott, W., & Nam, I. (2013). *Reducing student loan debt through parents' college savings* (CSD Working Paper 13-07). St. Louis, MO: Washington University, Center for Social Development. This paper uses longitudinal data from the Educational Longitudinal Survey of 2002 (ELS:2002) from the National Center for Education Statistics (NCES). The survey began in 2002 when students were in 10<sup>th</sup> grade, and follow-up waves took place in 2004 and 2006.

students are more likely to report paying for four-year college attendance with family contributions when their parents have college savings accounts. Reducing the amount of college debt accrued by LMI and male students—for whom debt may have a more negative effect on persistence—may be more important than finding ways to reduce debt amassed by HI students.<sup>21</sup>

The continually increasing number and amount of student loans suggest that grants are doing very little to reduce the need for them. This implies that there is a need to increase the amount of grant aid available or that other strategies that align better with the American ideal of personal responsibility (e.g., saving).

## Conclusion

Evidence suggests that college savings can be part of a strategy to help increase college enrollment and graduation rates and reduce student loan debt amounts. However, savings must be sufficient to pay for actual college expenses to effectively reduce the amount of student loan debt accrued. Some research suggests that debt over \$10,000 can have adverse effects on students' persistence in college,<sup>22</sup> but students who do graduate have about \$24,000 in debt on average.<sup>23</sup> How can we expect students and their parents, particularly those who are low-income, to save at least \$14,000 for college? One way to overcome this obstacle might be to open savings accounts as early as birth. In addition to starting early, CDAs and other savings policies that provide students with financial incentives such as initial deposits, savings matches, and the opportunity for third-party deposits might achieve the greatest effect on college enrollment and graduation rates and reduce the amount of student loan debt.

## Endnotes

1. Americans at the upper end of the income spectrum spend nine times as much per child as low-income families spend. See Kornrich, S., & Furstenberg, F. (2010). *Investing in children: Changes in parental spending on children, 1972 to 2007*. University of Sydney: The United States Studies Center.
2. See Elliott, W. (2013). The effects of economic instability on children's educational outcomes. *Children and Youth Services Review*, 35(3), 461-471. doi:10.1016/j.childyouth.2012.12.017.
3. I would like to thank Dr. Terri Friedline for suggesting the phrase "small-dollar accounts."
4. See Elliott, W., & Beverly, S. (2011a). Staying on course: The effects of assets and savings on the college progress of young adults. *American Journal of Education*, 117(3), 343-374; Elliott, W., & Beverly, S. (2011b). The role of savings and wealth in reducing "wilt" between expectations and college attendance. *Journal of Children and Poverty*, 17(2), 165-185; Elliott, W., Constance-Huggins, M., & Song, H. (2012). Improving college progress among low- to moderate-income (LMI) young adults: The role of assets. *Journal of Family and Economic Issues*. doi:10.1007/s10834-012-9341-0; Elliott, W., & Nam, I. (2012). Direct effects of assets and savings on the college progress of Black young adults. *Educational Evaluation and Policy Analysis*, 34(1), 89-108; Advisory Committee on Student Financial Assistance (ACSFA). (2001). *Access denied: Restoring the nation's commitment to equal educational opportunity*. Retrieved from [http://www2.ed.gov/about/bdscomm/list/acsfa/access\\_denied.pdf](http://www2.ed.gov/about/bdscomm/list/acsfa/access_denied.pdf); Elliott, W., Choi, E. H., Destin, M., & Kim, K. (2011). The age old question, which comes first? A simultaneous test of children's savings and children's college-bound identity. *Children and Youth Services Review*, 33(7), 1101-1111; and Elliott, W., Chowa, G., & Loke, V. (2011). Toward a children's savings and college-bound identity intervention for raising college attendance rates: A multilevel propensity score analysis. *Sociology Mind*, 1(4), 192-205.
5. Income categories used in Elliott (2012) and Elliott, Song, & Nam (2012) are based on data from the PSID and CDS are as follows: LMI families are those whose income is under \$50,000, and HI families are those whose income is \$50,000 or more.
6. See Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199-214.
7. See Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-292; Lea, S. E. G., Tarpy, R. M., & Webley, P. (1987). *The individual in the economy*. Cambridge, MA: Cambridge University Press; Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199-214; Winnett, A., & Lewis, A. (1995). Household accounts, mental accounts, and savings behavior: Some old economics rediscovered? *Journal of Economic Psychology*, 16(1995), 431-448; and Xiao, J. J., & Anderson, J. G. (1997). Hierarchical financial needs reflected by household financial asset shares. *Journal of Family and Economic Issues*, 18(4), 333-355.



8. Research suggests that children do not always act on an identity. See Oyserman, D., & Destin, M. (2010). Identity-based motivation: Implications for intervention. *The Counseling Psychologist*, 38(7), 1001-1043.
9. The median age at the time of the CDS was 16.10 years.
10. For more information about the concept of future expected savings, see Sherraden, M. (1991). *Assets and the poor: A new American welfare policy*. Armonk, NY: M.E. Sharpe.
11. See Elliott, W. (2009). Children's college aspirations and expectations: The potential role of college development accounts (CDAs) *Children and Youth Services Review*, 31(2), 274-283 and Elliott, W., Jung, H., & Friedline, T. (2010). Math achievement and children's savings: Implications for Child Development Accounts. *Journal of Family and Economic Issues*, 31(2), 171-184.
12. See Heller, D. E. (2008). Early commitment of student financial aid: Perhaps modest improvement. In S. Baum, M. McPherson & P. Steele (Eds.), *The effectiveness of student aid policies: What the research tells us* (pp. 39-68). New York: NY: The College Board.
13. All data in this paragraph are from The College Board. (2012b). Trends in student aid 2012. *Trends in higher education series*. New York, NY: College Board.
14. See Woo, J., H., & Choy, S., P. (2011). Merit aid for undergraduates: Trends from 1995-96 to 2007-08 (NCES 2012-160). In T. Weko (Ed.), *Stats in Brief* (Vol. NCES 2012-160): U.S. Department of Education, National Center for Education Statistics.
15. The following income categories used in Elliott & Nam (2013) are based on data from ELS:2002: low-income (\$35,000 or below), moderate-income (\$35,001-\$75,000), middle-income (\$75,001-\$100,000), high-income (\$100,001 or higher).
16. See Elliott, W., & Nam, I. (2013). *Reducing Student Loan Debt through Parents' College Savings* (CSD Working Paper 13-07). St. Louis, MO: Washington University, Center for Social Development.
17. See Dwyer, R. E., McCloud, L., & Hodson, R. (2011). Youth debt, mastery, and self-esteem: Class-stratified effects of indebtedness on self-concept. *Social Science Research*, 40, 727-741. doi:10.1016/j.ssresearch.2011.02.001.
18. See Dwyer, R. E., McCloud, L., & Hodson, R. (2012). Debt and graduation from American universities. *Social Forces*, 90(4), 1133-1155; Heller, D. E. (2008). Early commitment of student financial aid: Perhaps modest improvement. In S. Baum, M. McPherson & P. Steele (Eds.), *The effectiveness of student aid policies: What the research tells us* (pp. 39-68). New York: NY: The College Board.
19. See Dwyer, R. E., McCloud, L., & Hodson, R. (2012). Debt and graduation from American universities. *Social Forces*, 90(4), 1133-1155 and Dwyer, R. E., McCloud, L., & Hodson, R. (2011). Youth debt, mastery, and self-esteem: Class-stratified effects of indebtedness on self-concept. *Social Science Research*, 40, 727-741. doi:10.1016/j.ssresearch.2011.02.001.
20. Campaigne, D. A., & Hossler, D. (1998). How do loans affect the educational decisions of students? Access, aspirations, college choice, and persistence. In R. Fossey & M. Bateman (Eds.), *Condemning students to debt: College loans and public policy*. New York: NY: Teachers College Press and Paulsen, M. B., & St. John, E. P. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *Journal of Higher Education*, 73(3), 189-236.
21. Paulsen, M. B., & St. John, E. P. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *Journal of Higher Education*, 73(3), 189-236; Dwyer, R. E., McCloud, L., & Hodson, R. (2012). Debt and graduation from American universities. *Social Forces*, 90(4), 1133-1155; and Buchmann, C., & DiPrete, T. A. (2006). The growing female advantage in college completion: The role of parental resources and academic achievement. *American Sociological Review*, 71, 515-541.
22. See Dwyer, R. E., McCloud, L., & Hodson, R. (2012). Debt and graduation from American universities. *Social Forces*, 90(4), 1133-1155 and Dwyer, R. E., McCloud, L., & Hodson, R. (2011). Youth debt, mastery, and self-esteem: Class-stratified effects of indebtedness on self-concept. *Social Science Research*, 40, 727-741. doi:10.1016/j.ssresearch.2011.02.001.
23. See The College Board. (2012). Trends in student aid 2012. *Trends in higher education series*. New York, NY: College Board.

## Acknowledgments

This Research Brief is based on papers supported by funding from the Charles Stewart Mott Foundation and Citi Foundation. Other funders of research on college savings include the Ford Foundation and Lumina Foundation for Education. The authors thank Margaret Clancy, Michael Sherraden, and Tiffany Trautwein at the Center for Social Development at Washington University in St. Louis for suggestions, reviews, and editing assistance.

## Suggested Citation

Elliott, W., Song, H-a., & Nam, I. (2013). *Relationships between college savings and enrollment, graduation, and student loan debt* (CSD Research Brief 13-09). St. Louis, MO: Washington University, Center for Social Development.

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